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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,281	10/24/2005	Gunter Fuhr	46955.23	8505
23973	7590	08/22/2007		
DRINKER BIDDLE & REATH ATTN: INTELLECTUAL PROPERTY GROUP ONE LOGAN SQUARE 18TH AND CHERRY STREETS PHILADELPHIA, PA 19103-6996			EXAMINER MACAULEY, SHERIDAN R	
			ART UNIT 1651	PAPER NUMBER
			MAIL DATE 08/22/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/532,281

Applicant(s)

FUHR ET AL.

Examiner

Sheridan R. MacAuley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/21/2005</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1-18 are pending.

#### ***Election/Restrictions***

1. Applicant's election of claims 15-18 in the reply filed on May 29, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement still deemed proper and is therefore made FINAL.
2. Claims 1-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.
3. Claims 15-18 are examined on the merits in this office action.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. The term "flexible elastically deformable" in claim 15 is a relative term that renders the claim indefinite. The term "flexible elastically deformable" is not defined by

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the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Any material could be "flexible elastically deformable" at an unspecified temperature. For example, the material could be iron, which is deformable at high temperatures, or latex, which is flexible at room temperature.

7. Claims 16-18 are rejected insofar as they depend from claim 15.

8. Claim 16 is also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether applicant intends to claim the "the receptacle of the at least one suspension specimen into which at least one specimen chamber is inserted" as a noun, or that the suspension medium "is inserted by immersing the at least one suspension chamber..." It is unclear what applicant intends to insert, and where it is intended to be inserted.

9. Claim 16 recites the limitation "the receptacle" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. The claims from which claim 16 depends do not recite a receptacle, and to which receptacle applicant is referring to is unclear.

10. Claim 18 is also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "adjacent to the frame elements of the carrier" renders the claim indefinite. It is unclear whether applicant intends for the specimen chamber to remain attached to the carrier, whether applicant intends for the

section that had been adjacent to the carrier to be cut, or some other reasonable interpretation of the term.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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14. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studer (US 2002/0108957). Claim 15 recites a method for storage of at least one suspension specimen in a low-temperature state, comprising the steps of: accommodating the at least one suspension specimen in at least one specimen chamber made of a flexible elastically deformable material; mounting the specimen chamber in a carrier according to claim 1 (which recites a carrier for at least one specimen chamber, comprising a mounting frame for positioning the specimen chamber, wherein the mounting frame has a first frame part and a second frame part which can be joined together detachably using connecting elements and which come in contact on side faces of the frame parts in the assembled state, wherein the specimen chamber can be secured between the side faces of the mounting frame, so that the specimen chamber is immovable relative to the mounting frame), wherein the specimen chamber is secured between the frame parts; and converting the suspension specimen to a low-temperature state by positioning the carrier with the specimen chamber in a cryomedium. Claim 16 recites the method of claim 15, wherein the receptacle of the at least one suspension specimen into which at least one specimen chamber is inserted by immersing the at least one specimen chamber with one inlet end into a specimen reservoir and transferring the suspension specimen under the influence of a vacuum applied to the corresponding outlet end or under the influence of capillary forces. Claim 17 recites the method according to one of claim 15, wherein at least one partial specimen is detached from the at least one specimen chamber in the low-temperature state by mechanical separation. Claim 18 recites the method according to claim 17,

wherein the mechanical separation comprises cutting off chamber sections of the specimen chamber adjacent to the frame elements of the carrier.

15. Studer teaches a method for the storage of at least one suspension specimen (i.e. hydrous specimen) in a low-temperature state by accommodating the suspension specimen in at least one specimen chamber, which may be of a flexible material (a porous polymer; abstract, p. 4, par. 41). Studer teaches mounting the specimen chamber with the specimen in a carrier, wherein the specimen chamber is secured between the frame parts (pp. 4-5, par. 48-49, figs. 4A and 4B). The carrier taught by Studer (see fig. 4A) comprises a mounting frame for positioning the specimen chamber (17) with a first and a second frame part (13) that can be joined together detachably using connecting elements (17) and that come into contact with side faces of the frame parts in the assembled state (17), wherein the specimen chamber can be secured between the side faces of the mounting frame so that it is immovable relative to the mounting frame (pp. 4-5, par. 48-49, fig. 4A). Studer teaches that the suspension specimen is converted to a low temperature state by positioning the specimen in a cryomedium (p. 5, par. 50). Studer teaches that the specimen is transferred into the specimen chamber by suction or under the influence of vacuum forces (p. 4, par. 46). Studer teaches that a partial specimen may be detached from the specimen chamber in the low temperature state by mechanical separation, such as by cutting off chamber sections (p. 4, par. 41, p. 5, par. 52).

16. Although Studer teaches that the first and second frame parts come into contact with the side faces of the frame parts in the assembled state, Studer does not

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specifically teach that first and second frame parts come into contact with each other on side faces of the frame parts in the assembled state. However, it would have been a matter of routine experimentation to develop an apparatus wherein at least one of the first or second frame parts (i.e. 13 in fig. 4A) was connected to the mounting frame (i.e. 17 in fig. 4A), resulting in an apparatus for practicing the method wherein the first and second frame parts come into direct contact with each other. Studer also does not specifically teach that the suspension specimen is converted to a low temperature state by positioning the specimen in a cryomedium with the carrier. Studer does, however, teach that the suspension specimen is exposed to the cryomedium within the carrier. Inserting the carrier as well as the specimen within the cryomedium to further facilitate cooling of the specimen would also have been a matter of routine experimentation. Additionally, Studer teaches that the cutting of the specimen in the specimen chamber occurs after the specimen chamber is removed from the carrier, and not that the cutting of the specimen occurs adjacent to the frame element of the carrier. One skilled in the art would have recognized that the cutting step could have been performed at any stage during the procedure, and would have been motivated to alter the procedure by cutting the specimen earlier in the process because Studer teaches the desirability of immediate removal and processing of the samples after freezing (p. 5, par. 51-52). One of ordinary skill in the art would have had a reasonable expectation of success in performing the claimed procedure because methods for cryopreservation of hydrous samples were well known in the art at the time of the invention, as taught by Studer (p.



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1, col. 1). It would therefore have been obvious to one of ordinary skill in the art to modify the teachings discussed above to develop the claimed invention.

17. Thus, the claimed invention as a whole was *prima facie* obvious over the combined teachings of the prior art.

### **Conclusion**

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan R. MacAuley whose telephone number is (571) 270-3056. The examiner can normally be reached on Mon-Thurs, 7:30AM-5:00PM EST, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM

/Ruth A Davis/  
Primary Examiner, AU 1651